

Claims

1. Evaporative crystallisation process to make salt compositions which
5 includes a step wherein a mother liquor containing an effective amount of a crystal growth inhibitor comprising at least one saccharide or saccharide derivative is formed, to form high-purity salt.
2. Process according to claim 1 wherein the high-purity salt has a bulk density
10 exceeding 0.7 g/cc.
3. Process according to claim 1 or 2 wherein the high-purity salt is an octahedral or spherical high-purity salt.
- 15 4. Process according to any one of the preceding claims further including a washing step for the crystallised salt.
5. Process according to any one of the preceding claims further including a drying step for the salt such that a salt or a wet salt is produced.
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6. Process according to any one of the preceding claims wherein the saccharide or saccharide derivative is present in its native form or in an oxidised form.
- 25 7. Process according to any one of the preceding claims wherein the saccharide derivative is selected from the group consisting of dehydrated saccharides, esterified saccharides, saccharides bearing one or more phosphate groups, one or more phosphonate groups, one or more phosphino groups, one or more sulfate groups, one or more sulfonate
30 groups, and/or one or more amino groups, alkali, alkaline earth or transition

metal salts of derivatised saccharides, and alkali, alkaline earth or transition metal salts of saccharides.

8. Process according to claim 7 wherein the crystal growth inhibitor comprises
5 a Ca and/or Fe salt of the saccharide or saccharide derivative.
9. Process according to any one of the preceding claims wherein the crystal growth inhibitor comprises at least one (derivatised) saccharide selected from the group consisting of glucose, fructose, galactose, mannose,
10 arabinose, xylose, lyxose, ribose, sucrose, lactose, maltose, raffinose, inulin, galactaric acid, gluconic acid, mannonic acid, and derivatives thereof.
10. Use of a brine produced with salt resulting from the process of any one of
15 the preceding claims in electrolysis processes.
11. Use of a brine according to claim 10 in a membrane electrolysis cell.
12. Use of the salt resulting from the process of any one of claims 1 – 9 for
20 consumption purposes.